

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1- 27. (Canceled)

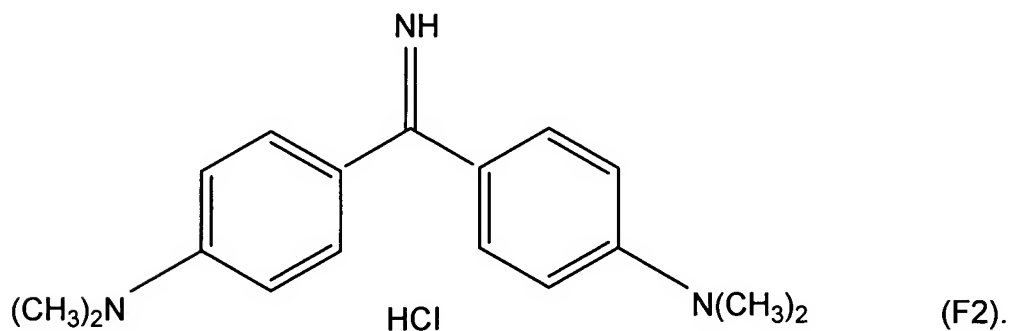
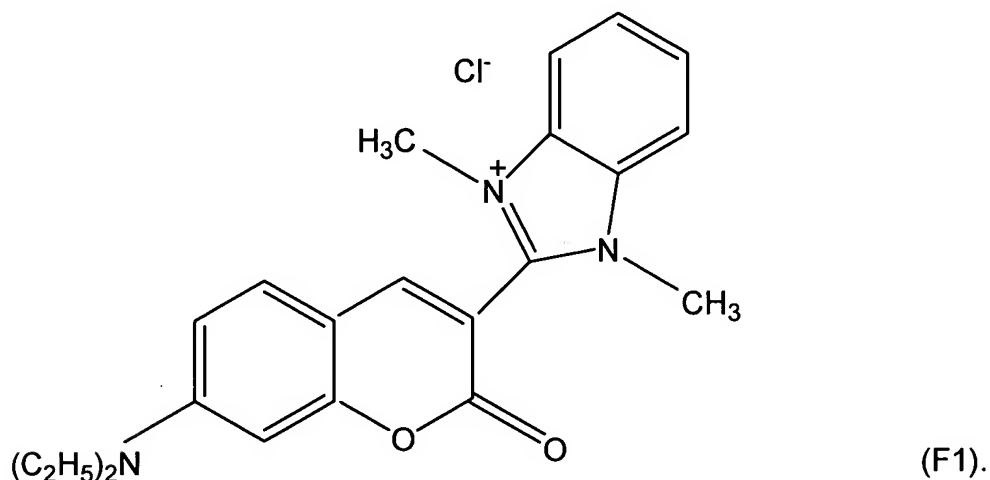
28. (New) A composition comprising, in a cosmetically acceptable medium, at least one fluorescent dye that is soluble in the medium, and at least one complexing agent chosen from hydroxycarboxylic acids, or the monovalent alkali metal, divalent alkali metal, alkaline-earth metal, transition metal, organic amine or ammonium salts thereof; and polycarboxylic acids, or the monovalent alkali metal, divalent alkali metal, alkaline-earth metal, transition metal, organic amine or ammonium salts thereof, with the proviso that the composition does not comprise, as a fluorescent dye, 2-[2-(4-dialkylamino)phenylethenyl]-1-alkylpyridinium in which the alkyl radical of the pyridinium nucleus is a methyl or ethyl radical and the alkyl radical of the benzene nucleus is a methyl radical, and in which the counterion is a halide.

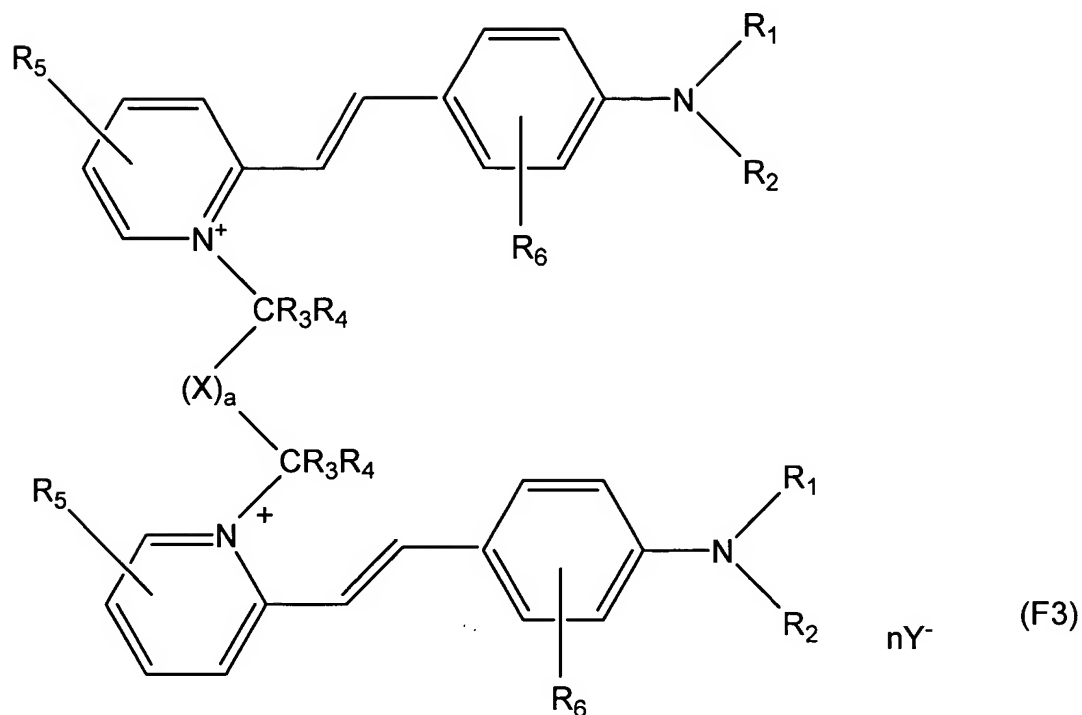
29. (New) The composition according to claim 28, wherein the fluorescent dye leads to a reflectance maximum that is in the wavelength range of from 500 to 650 nanometers.

30. (New) The composition according to claim 29, wherein the fluorescent dye leads to a reflectance maximum that is in the wavelength range of from 550 to 620 nanometers.

31. (New) The composition according to claim 28, wherein the at least one fluorescent dye is chosen from fluorescent compounds belonging to the following families: naphthalimides; cationic coumarins, non-cationic coumarins; xanthenodiquinolizines; azaxanthenes; naphtholactams; azlactones; oxazines; thiazines; dioxazines; and polycationic fluorescent dyes chosen from azo, azomethine and methine polycationic fluorescent dyes.

32. (New) The composition according to claim 31, wherein the fluorescent compounds are chosen from compounds of formulas (F1), (F2), and (F3) below:





wherein:

R_1 and R_2 , which may be identical or different, are each chosen from:

- a hydrogen atom;
- linear or branched alkyl radicals comprising 1 to 10 carbon atoms, optionally interrupted and/or substituted with at least one hetero atom and/or group comprising at least one hetero atom and/or substituted with at least one halogen atom;
- aryl or arylalkyl radicals, the aryl group comprising 6 carbon atoms and the alkyl radical comprising 1 to 4 carbon atoms; the aryl radical optionally being substituted with at least one linear or branched alkyl radical comprising 1 to 4 carbon atoms optionally interrupted and/or substituted with at least one hetero atom and/or group comprising at least one hetero atom and/or substituted with at least one halogen atom;

R₁ and R₂ may optionally be linked so as to form a heterocycle with the nitrogen atom and may comprise at least one other hetero atom, the heterocycle optionally being substituted with at least one linear or branched alkyl radical and optionally being interrupted and/or substituted with at least one hetero atom and/or group comprising at least one hetero atom and/or substituted with at least one halogen atom; or

R₁ or R₂ may optionally be engaged in a heterocycle comprising the nitrogen atom and one of the carbon atoms of the phenyl group bearing the nitrogen atom;

R₃ and R₄, which may be identical or different, are each chosen from a hydrogen atom and alkyl radicals comprising 1 to 4 carbon atoms;

R₅, which may be identical or different, is chosen from a hydrogen atom, a halogen atom, and linear or branched alkyl radicals comprising 1 to 4 carbon atoms, optionally interrupted with at least one hetero atom;

R₆, which may be identical or different, is chosen from a hydrogen atom; a halogen atom; linear or branched alkyl radicals comprising 1 to 4 carbon atoms, optionally substituted and/or interrupted with at least one hetero atom and/or group bearing at least one hetero atom and/or substituted with at least one halogen atom;

X is chosen from:

- linear or branched alkyl radicals comprising 1 to 14 carbon atoms and alkenyl radicals comprising 2 to 14 carbon atoms, optionally interrupted and/or substituted with at least one hetero atom and/or group comprising

at least one hetero atom and/or substituted with at least one halogen atom;

- 5- or 6-membered heterocyclic radicals optionally substituted with at least one linear or branched alkyl radical comprising 1 to 14 carbon atoms, optionally substituted with at least one hetero atom; with at least one linear or branched aminoalkyl radical comprising 1 to 4 carbon atoms, optionally substituted with at least one hetero atom; or with at least one halogen atom;
- fused or non-fused aromatic or diaromatic radicals, optionally separated with an alkyl radical comprising 1 to 4 carbon atoms, wherein the aryl radical(s) of the aromatic or diaromatic radicals is optionally substituted with at least one halogen atom or with at least one alkyl radical comprising 1 to 10 carbon atoms optionally substituted and/or interrupted with at least one hetero atom and/or group bearing at least one hetero atom;
- dicarbonyl radicals;
- the group X optionally bearing one or more cationic charges;

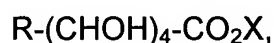
a equals 0 or 1;

Y⁻, which may be identical or different, is chosen from organic or inorganic anions; and n is an integer at least equal to 2 and at most equal to the number of cationic charges present in the fluorescent compound.

33. (New) The composition according to claim 28, wherein the at least one fluorescent dye is present in the composition in an amount ranging from 0.01% to 20% by weight relative to the total weight of the composition.

34. (New) The composition according to claim 33, wherein the at least one fluorescent dye is present in the composition in an amount ranging from 0.1% to 5% by weight relative to the total weight of the composition.

35. (New) The composition according to claim 28, wherein the at least one complexing agent is chosen from hydroxycarboxylic acids having the formula:



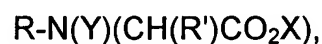
in which

R is chosen from a CH₂OH group and a CO₂X group and

X is chosen from a hydrogen, a monovalent cation, and a divalent cation.

36. (New) The composition according to claim 35, wherein the at least one hydroxycarboxylic acid complexing agent is chosen from gluconic acid, mucic acid, glucaric acid, mannaric acid, salts thereof, and mixtures thereof.

37. The composition according to claim 28, wherein the at least one complexing agent is chosen from polycarboxylic acids having the formula:



in which

Y is chosen from a hydrogen atom and a group $\text{CH(R')CO}_2\text{X}$;

R' is chosen from a hydrogen atom and a group $\text{CH}_2\text{CO}_2\text{X}$;

R is chosen from

a hydrogen atom,

$-\text{CH}(\text{CO}_2\text{X})-(\text{CH}_2)_n\text{CO}_2\text{X}$,

$-(\text{CH}_2)\text{OH}$,

$-\text{CH}(\text{R}'')\text{CO}_2\text{X}$,

$-(\text{CH}_2)_n-\text{N}(\text{COR}'')-\text{CH}_2\text{CO}_2\text{X}$,

$-(\text{CH}_2)_n-\text{N}(\text{CH}_2\text{CO}_2\text{X})\text{CH}_2\text{CO}_2\text{X}$, and

$-(\text{CH}_2)_n\text{NH}-\text{CH}(\text{CO}_2\text{X})\text{CH}_2\text{CO}_2\text{X}$,

in which R'' is chosen from linear or branched $\text{C}_1\text{-C}_{30}$ or cyclic $\text{C}_3\text{-C}_{30}$ alkyl groups and n is an integer ranging from 1 to 5; and

X is chosen from a hydrogen atom, a monovalent cation, and a divalent cation.

38. (New) The composition according to claim 37, wherein the at least one polycarboxylic acid complexing agent is chosen from:

- compounds comprising four carboxylic acid or carboxylic salt functions, when R is a hydrogen atom and R' is a group $-\text{CH}_2-\text{CO}_2\text{X}$, or when R is a group $-\text{CH}(\text{CO}_2\text{X})-(\text{CH}_2)_2-\text{CO}_2\text{X}$ and R' is a hydrogen atom; and
- compounds comprising three carboxylic acid or carboxylic salt functions, when R is a group $-\text{CH}(\text{CH}_3)-\text{CO}_2\text{X}$ and R' is a hydrogen atom, or

when R is a group $-(CH_2)_2-N(-COR'')-CH_2-CO_2X$ and R' is a hydrogen atom.

39. (New) The composition according to claim 37, wherein the at least one polycarboxylic acid complexing agent is chosen from methylglycinediacetic acid, N-lauroylethylenediamine-N,N',N'-triacetic acid, iminodisuccinic acid, N,N-dicarboxymethyl-L-glutamic acid, ethylenediamine-N,N'-disuccinic acid, salts thereof, and mixtures thereof.

40. (New) The composition according to claim 28, wherein the at least one complexing agent is present in the composition in an amount ranging from 0.0001% to 20% by weight relative to the weight of the composition.

41. (New) The composition according to claim 40, wherein the at least one complexing agent is present in the composition in an amount ranging from 0.01% to 5% by weight relative to the weight of the composition.

42. (New) The composition according to claim 28, wherein the composition further comprises at least one surfactant chosen from nonionic, anionic and amphoteric surfactants.

43. (New) The composition according to claim 42, wherein the surfactant content is 0.01% to 30% by weight relative to the total weight of the composition.

44. (New) The composition according to claim 28, wherein the composition further comprises at least one oxidizing agent.

45. (New) The composition according to claim 44, wherein the oxidizing agent is chosen from hydrogen peroxide, urea peroxide, alkali metal bromates, persalts, and enzymes.

46. (New) The composition according to claim 45, wherein the oxidizing agent is hydrogen peroxide.

47. (New) A process for dyeing human keratin fibers with a lightening effect, comprising:

a) applying to keratin fibers for a time sufficient to develop coloration and lightening a composition comprising, in a cosmetically acceptable medium,

at least one fluorescent dye that is soluble in the medium, and

at least one complexing agent chosen from

hydroxycarboxylic acids, or the monovalent alkali metal, divalent alkali metal, alkaline-earth metal, transition metal, organic amine or ammonium salts thereof; and

polycarboxylic acids, or the monovalent alkali metal, divalent alkali metal, alkaline-earth metal, transition metal, organic amine or ammonium salts thereof;

with the proviso that the composition does not comprise, as a fluorescent dye, 2-[2-(4-dialkylamino)phenylethenyl]-1-alkylpyridinium in which the alkyl radical of the pyridinium nucleus is a methyl or ethyl radical and the alkyl radical of the benzene nucleus is a methyl radical, and in which the counterion is a halide;

- b) optionally rinsing the fibers;
- c) optionally washing the fibers with shampoo and rinsing again; and
- d) drying the fibers or leaving the fibers to dry.

48. (New) The process according to claim 47, wherein, prior to application of the dyeing composition, the human keratin fibers have previously been artificially dyed or pigmented.

49. (New) The process according to claim 47, wherein the human keratin fibers are hair with a tone height of less than or equal to 6.

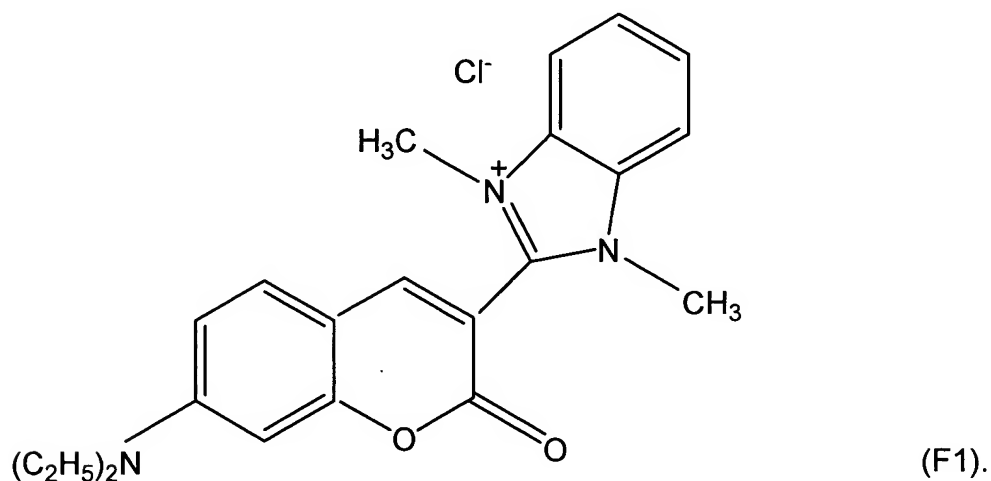
50. (New) The process according to claim 49, wherein the hair has a tone height of less than or equal to 4.

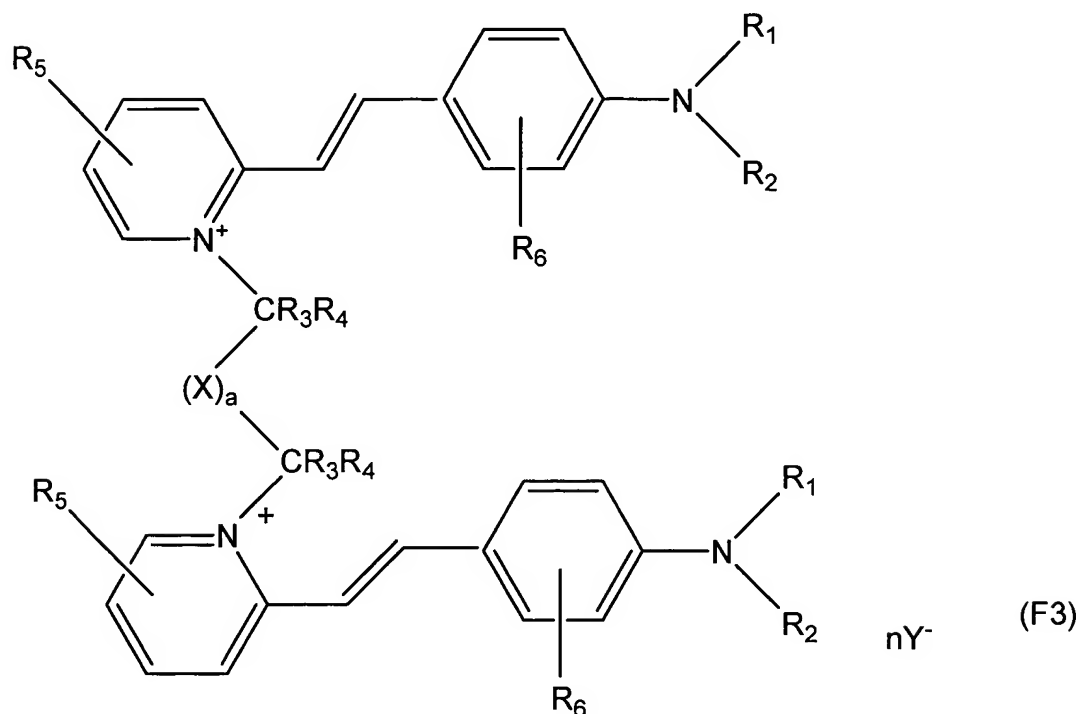
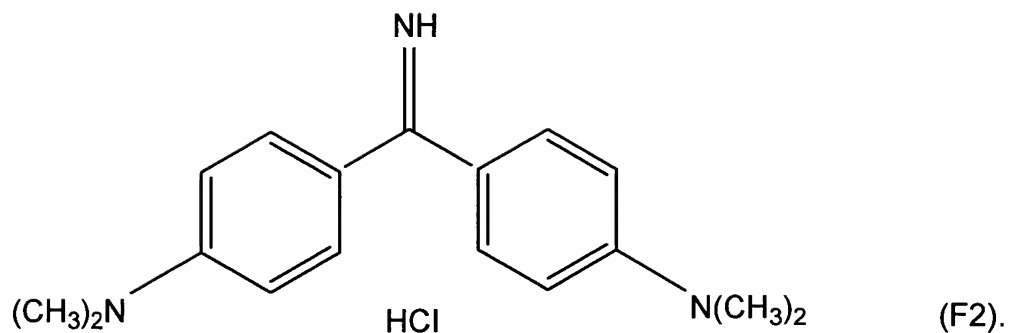
51. (New) The process according to claim 47, wherein the fluorescent dye leads to a reflectance maximum that is in the wavelength range from 500 to 650 nanometers.

52. (New) The process according to claim 51, wherein the fluorescent dye leads to a reflectance maximum that is in the wavelength range from 550 to 620 nanometers.

53. (New) The process according to claim 47, wherein the fluorescent dye is chosen from at least one fluorescent compound belonging to the following families: naphthalimides; cationic coumarins, non-cationic coumarins; xanthenodiquinolizines; azaxanthenes; naphtholactams; azlactones; oxazines; thiazines; dioxazines; and polycationic fluorescent dyes chosen from azo, azomethine and methine polycationic fluorescent dyes.

54. (New) The process according to claim 53, wherein the fluorescent compound is chosen from dyes of formulas (F1), (F2), (F3) and (F4):





wherein:

R_1 and R_2 , which may be identical or different, are each chosen from:

- a hydrogen atom;
- linear or branched alkyl radicals comprising 1 to 10 carbon atoms, optionally interrupted and/or substituted with at least one hetero atom and/or group comprising at least one hetero atom and/or substituted with at least one halogen atom;

- aryl or arylalkyl radicals, the aryl group comprising 6 carbon atoms and the alkyl radical comprising 1 to 4 carbon atoms; the aryl radical optionally being substituted with at least one linear or branched alkyl radical comprising 1 to 4 carbon atoms optionally interrupted and/or substituted with at least one hetero atom and/or group comprising at least one hetero atom and/or substituted with at least one halogen atom;

R₁ and R₂ may optionally be linked so as to form a heterocycle with the nitrogen atom and may comprise at least one other hetero atom, the heterocycle optionally being substituted with at least one linear or branched alkyl radical and optionally being interrupted and/or substituted with at least one hetero atom and/or group comprising at least one hetero atom and/or substituted with at least one halogen atom; or

R₁ or R₂ may optionally be engaged in a heterocycle comprising the nitrogen atom and one of the carbon atoms of the phenyl group bearing the nitrogen atom;

R₃ and R₄, which may be identical or different, are each chosen from a hydrogen atom and alkyl radicals comprising 1 to 4 carbon atoms;

R₅, which may be identical or different, is chosen from a hydrogen atom, a halogen atom, and linear or branched alkyl radicals comprising 1 to 4 carbon atoms, optionally interrupted with at least one hetero atom;

R₆, which may be identical or different, is chosen from a hydrogen atom; a halogen atom; linear or branched alkyl radicals comprising 1 to 4 carbon atoms,

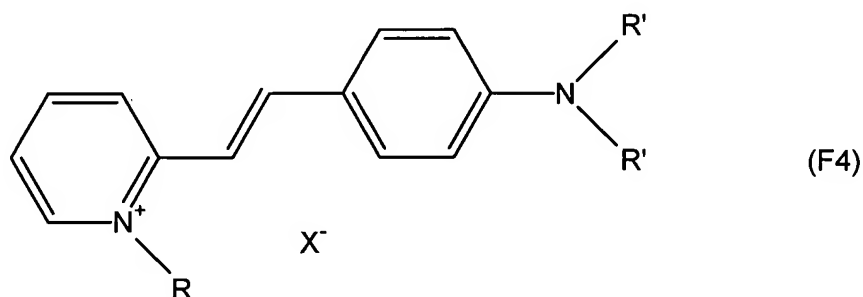
optionally substituted and/or interrupted with at least one hetero atom and/or group bearing at least one hetero atom and/or substituted with at least one halogen atom;

X is chosen from:

- linear or branched alkyl radicals comprising 1 to 14 carbon atoms and alkenyl radicals comprising 2 to 14 carbon atoms, optionally interrupted and/or substituted with at least one hetero atom and/or group comprising at least one hetero atom and/or substituted with at least one halogen atom;
- 5- or 6-membered heterocyclic radicals optionally substituted with at least one linear or branched alkyl radical comprising 1 to 14 carbon atoms, optionally substituted with at least one hetero atom; with at least one linear or branched aminoalkyl radical comprising 1 to 4 carbon atoms, optionally substituted with at least one hetero atom; or with at least one halogen atom;
- fused or non-fused aromatic or diaromatic radicals, optionally separated with an alkyl radical comprising 1 to 4 carbon atoms, the aryl radical(s) of said aromatic or diaromatic radicals optionally being substituted with at least one halogen atom or with at least one alkyl radical comprising 1 to 10 carbon atoms optionally substituted and/or interrupted with at least one hetero atom and/or group bearing at least one hetero atom;
- dicarbonyl radicals;
- the group X optionally bearing one or more cationic charges;

a equals 0 or 1;

Y^- , which may be identical or different, is chosen from organic or inorganic anions; and n is an integer at least equal to 2 and at most equal to the number of cationic charges present in the fluorescent compound;



in which

R is chosen from a methyl or ethyl radical;

R' is a methyl radical; and

X^- is chosen from chloride, iodide, sulphate, methosulphate, acetate, and perchlorate anions.

55. (New) A process for dyeing human keratin fibers with a lightening effect, comprising:

- a) separately storing:
 - at least one first composition comprising, in a cosmetically acceptable medium,
 - at least one fluorescent dye that is soluble in the medium, and
 - at least one complexing agent chosen from

hydroxycarboxylic acids, or the monovalent alkali metal, divalent alkali metal, alkaline-earth metal, transition metal, organic amine or ammonium salts thereof; and

polycarboxylic acids, or the monovalent alkali metals, divalent alkali metal, alkaline-earth metal, transition metal, organic amine or ammonium salts thereof;

with the proviso that the composition does not comprise, as a fluorescent dye, 2-[2-(4-dialkylamino)phenylethenyl]-1-alkylpyridinium in which the alkyl radical of the pyridinium nucleus is a methyl or ethyl radical and the alkyl radical of the benzene nucleus is a methyl radical, and in which the counterion is a halide; and

at least one second composition comprising, in a cosmetically acceptable medium, at least one oxidizing agent;

b) mixing together the at least one first and at least one second compositions and applying the mixture to the keratin fibers for a time sufficient to develop coloration and lightening, wherein the at least one first and at least one second compositions are mixed only at the time of application to the keratin fibers;

c) rinsing the fibers;

d) optionally washing the fibers with shampoo and rinsing; and

e) drying the fibers or leaving the fibers to dry.

56. (New) The process according to claim 55, wherein prior to application of the dyeing composition, the human keratin fibers have previously been artificially dyed or pigmented.

57. (New) The process according to claim 55, wherein the human keratin fibers are hair with a tone height of less than or equal to 6.

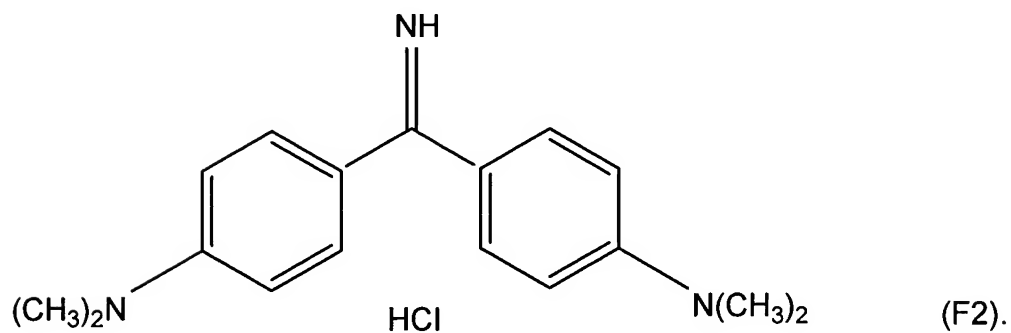
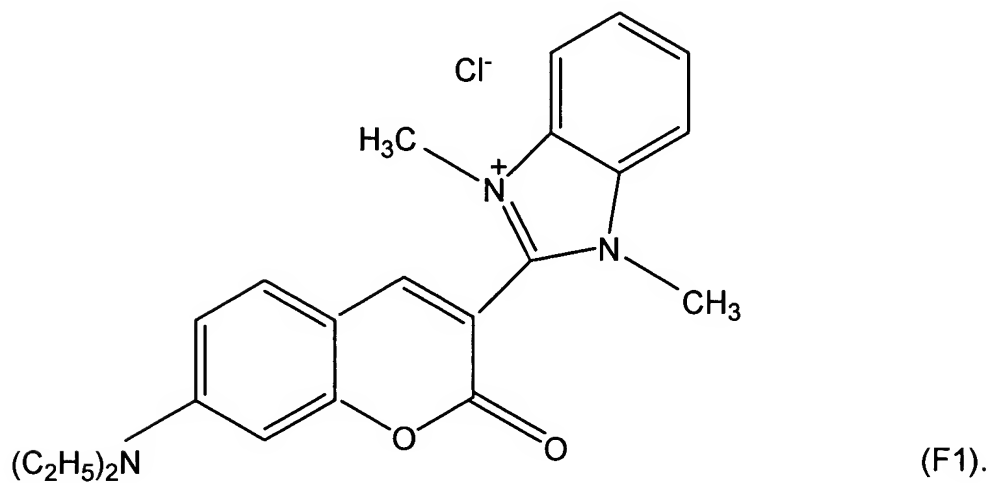
58. (New) The process according to claim 57, wherein the hair has a tone height of less than or equal to 4.

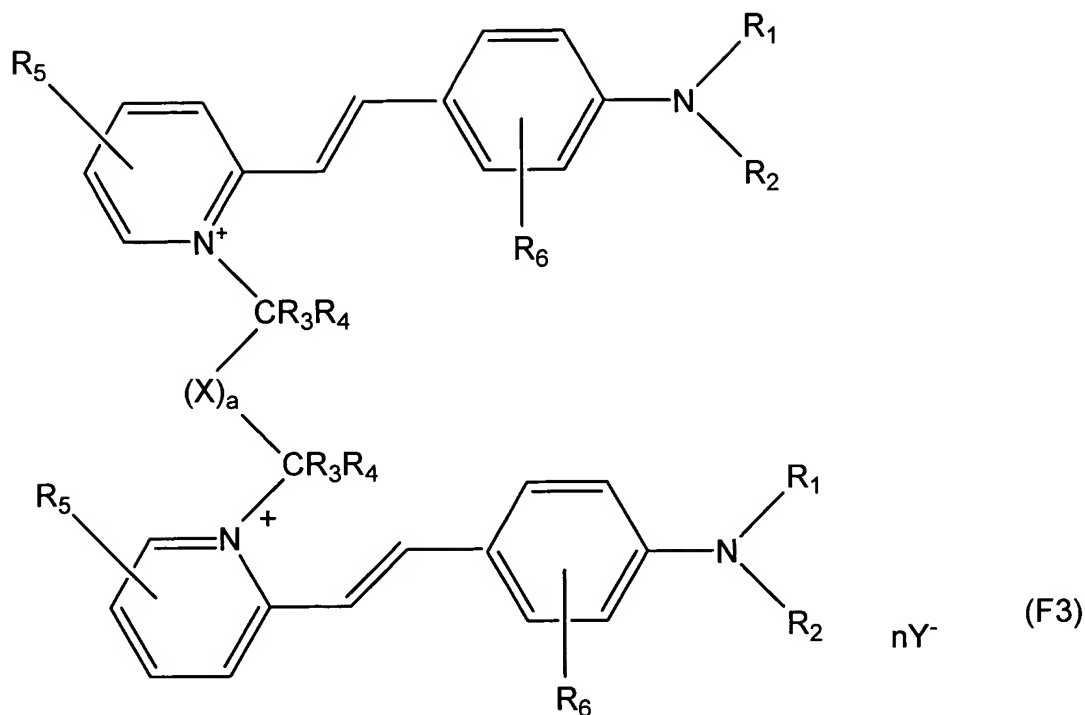
59. (New) The process according to claim 55, wherein the fluorescent dye leads to a reflectance maximum that is in the wavelength range from 500 to 650 nanometers.

60. (New) The process according to claim 59, wherein the fluorescent dye leads to a reflectance maximum that is in the wavelength range from 550 to 620 nanometers.

61. (New) The process according to claim 55, wherein the fluorescent dye is chosen from at least one fluorescent compound belonging to the following families: naphthalimides; cationic coumarins, non-cationic coumarins; xanthenodiquinolizines; azaxanthenes; naphtholactams; azlactones; oxazines; thiazines; dioxazines; and polycationic fluorescent dyes chosen from azo, azomethine and methine polycationic fluorescent dyes.

62. The process according to claim 55, wherein the fluorescent compound is chosen from dyes of formulas (F1), (F2), (F3) and (F4):





wherein:

R_1 and R_2 , which may be identical or different, are each chosen from:

- a hydrogen atom;
- linear or branched alkyl radicals comprising 1 to 10 carbon atoms, optionally interrupted and/or substituted with at least one hetero atom and/or group comprising at least one hetero atom and/or substituted with at least one halogen atom;
- aryl or arylalkyl radicals, the aryl group comprising 6 carbon atoms and the alkyl radical comprising 1 to 4 carbon atoms; the aryl radical optionally being substituted with at least one linear or branched alkyl radical comprising 1 to 4 carbon atoms optionally interrupted and/or substituted with at least one hetero atom and/or group comprising at least one hetero atom and/or substituted with at least one halogen atom;

R₁ and R₂ may optionally be linked so as to form a heterocycle with the nitrogen atom and may comprise at least one other hetero atom, the heterocycle optionally being substituted with at least one linear or branched alkyl radical and optionally being interrupted and/or substituted with at least one hetero atom and/or group comprising at least one hetero atom and/or substituted with at least one halogen atom; or

R₁ or R₂ may optionally be engaged in a heterocycle comprising the nitrogen atom and one of the carbon atoms of the phenyl group bearing the nitrogen atom;

R₃ and R₄, which may be identical or different, are each chosen from a hydrogen atom and alkyl radicals comprising 1 to 4 carbon atoms;

R₅, which may be identical or different, is chosen from a hydrogen atom, a halogen atom, and linear or branched alkyl radicals comprising 1 to 4 carbon atoms, optionally interrupted with at least one hetero atom;

R₆, which may be identical or different, is chosen from a hydrogen atom; a halogen atom; linear or branched alkyl radicals comprising 1 to 4 carbon atoms, optionally substituted and/or interrupted with at least one hetero atom and/or group bearing at least one hetero atom and/or substituted with at least one halogen atom;

X is chosen from:

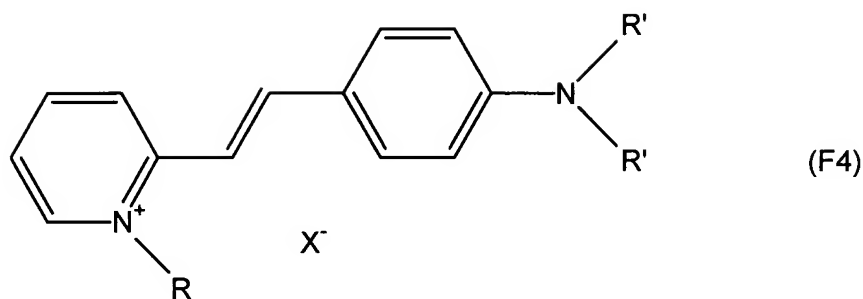
- linear or branched alkyl radicals comprising 1 to 14 carbon atoms and alkenyl radicals comprising 2 to 14 carbon atoms, optionally interrupted and/or substituted with at least one hetero atom and/or group comprising

at least one hetero atom and/or substituted with at least one halogen atom;

- 5- or 6-membered heterocyclic radicals optionally substituted with at least one linear or branched alkyl radical comprising 1 to 14 carbon atoms, optionally substituted with at least one hetero atom; with at least one linear or branched aminoalkyl radical comprising 1 to 4 carbon atoms, optionally substituted with at least one hetero atom; or with at least one halogen atom;
- fused or non-fused aromatic or diaromatic radicals, optionally separated with an alkyl radical comprising 1 to 4 carbon atoms, the aryl radical(s) of said aromatic or diaromatic radicals optionally being substituted with at least one halogen atom or with at least one alkyl radical comprising 1 to 10 carbon atoms optionally substituted and/or interrupted with at least one hetero atom and/or group bearing at least one hetero atom;
- dicarbonyl radicals;
- the group X optionally bearing one or more cationic charges;

a equals 0 or 1;

Y⁻, which may be identical or different, is chosen from organic or inorganic anions; and n is an integer at least equal to 2 and at most equal to the number of cationic charges present in the fluorescent compound;



in which

R is chosen from a methyl or ethyl radical;

R' is a methyl radical; and

X⁻ is chosen from chloride, iodide, sulphate, methosulphate, acetate, and perchlorate anions.

63. (New) A process for coloring colored skin with a lightening effect, comprising:

a) applying to the skin a composition comprising, in a cosmetically acceptable medium,

at least one fluorescent dye that is soluble in the medium, and

at least one complexing agent chosen from

hydroxycarboxylic acids, or the monovalent alkali metal, divalent alkali metal, alkaline-earth metal, transition metal, organic amine or ammonium salts thereof; and

polycarboxylic acids, or the monovalent alkali metal, divalent alkali metal, alkaline-earth metal, transition metal, organic amine or ammonium salts thereof;

with the proviso that the composition does not comprise, as a fluorescent dye, 2-[2-(4-dialkylamino)phenylethenyl]-1-alkylpyridinium in which the alkyl radical of the pyridinium nucleus is a methyl or ethyl radical and the alkyl radical of the benzene nucleus is a methyl radical, and in which the counterion is a halide; and

b) drying the skin or leaving the skin to dry.

64. (new) A multi-compartment device for dyeing and lightening keratin fibers, comprising:

at least one compartment containing a composition comprising, in a cosmetically acceptable medium,

at least one fluorescent dye that is soluble in the medium, and

at least one complexing agent chosen from

hydroxycarboxylic acids, or the monovalent alkali metal, divalent alkali metal, alkaline-earth metal, transition metal, organic amine or ammonium salts thereof; and

polycarboxylic acids, or the monovalent alkali metal, divalent alkali metal, alkaline-earth metal, transition metal, organic amine or ammonium salts thereof;

with the proviso that the composition does not comprise, as a fluorescent dye, 2-[2-(4-dialkylamino)phenylethenyl]-1-alkylpyridinium in which the alkyl radical of the pyridinium nucleus is a methyl or ethyl radical and the alkyl radical of the benzene nucleus is a methyl radical, and in which the counterion is a halide; and

at least one other compartment containing a composition comprising, in a cosmetically acceptable medium, at least one oxidizing agent.